

## Meehanite GA-50 Flake Graphite Cast Iron

Category : Metal , Ferrous Metal , Cast Iron , Gray Cast Iron

### Material Notes:

Type GA-50 combines high strength, toughness, wear resistance and damping capacity with excellent machinability. Responds well to heat treatment, local and surface hardening. General Meehanite information - Meehanite metal is first melted to a definite degree of undercooling or constitution which is related to the section of the casting to be poured and the range of physical properties such as tensile strength and hardness required. Nucleation with patented mixtures of graphitizing agents results in the removal of undercooling, in the controlled precipitation of graphite and in a fine grained eutectic cell structure which determines the density and physical integrity of the casting. Ordinary cast irons made to chemical specifications which do not include the benefit of controlled undercooling are influenced by mass effect to a maximum degree and for this and other reasons cannot be considered an equivalent to Meehanite metal. Information provided by Meehanite Marketing Association.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Meehanite-GA-50-Flake-Graphite-Cast-Iron.php](http://www.lookpolymers.com/polymer_Meehanite-GA-50-Flake-Graphite-Cast-Iron.php)

Physical Properties	Metric	English	Comments
Specific Gravity	7.31 g/cc	7.31 g/cc	

Mechanical Properties	Metric	English	Comments
Hardness, Brinell	220	220	Nominal
Tensile Strength, Ultimate	345 MPa	50000 psi	
Tensile Strength, Yield	152 MPa	22000 psi	.01% permanent set
Modulus of Elasticity	138 GPa	20000 ksi	
Modulus of Rupture	0.621 GPa	90.0 ksi	
Compressive Strength	1240 MPa	180000 psi	
Poissons Ratio	0.32	0.32	
Fatigue Strength	152 MPa	22000 psi	
Machinability	48 %	48 %	Dalcher
Shear Modulus	60.3 GPa	8750 ksi	
Shear Strength	345 MPa	50000 psi	
Izod Impact Unnotched	33.9 - 47.5 J	25.0 - 35.0 ft-lb	
	@Diameter 20.3 mm	@Diameter 0.798 in	

Thermal Properties	Metric	English	Comments
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Thermal Properties	11.2 $\mu\text{m}/\text{m}\cdot\text{Å}^\circ\text{C}$ Metric	6.20 $\mu\text{in}/\text{in}\cdot\text{Å}^\circ\text{F}$ English	Comments
CTE, linear	@Temperature 37.8 - 538 $\text{Å}^\circ\text{C}$	@Temperature 100 - 1000 $\text{Å}^\circ\text{F}$	
Thermal Conductivity	50.4 W/m-K @Temperature 10.0 - 232 $\text{Å}^\circ\text{C}$	350 BTU-in/hr-ft $\text{Å}^2\cdot\text{Å}^\circ\text{F}$ @Temperature 50.0 - 450 $\text{Å}^\circ\text{F}$	
Shrinkage	1.3 - 1.5 %	1.3 - 1.5 %	Patternmaker Shrinkage

## Contact Songhan Plastic Technology Co.,Ltd.

Website : [www.lookpolymers.com](http://www.lookpolymers.com)

Email : [sales@lookpolymers.com](mailto:sales@lookpolymers.com)

Tel : +86 021-51131842

Mobile : +86 13061808058

Skype : lookpolymers

Address : United North Road 215,Fengxian District, Shanghai City,China